

WA State Consolidated Technology Services State Data Center Projects

Prepared By:	Consolidated Technology Services
Date: 12/20/2012	Period Covered: December 10 – December 21

Project Dashboard

	Scope	Schedule	Budget
Project Name			
SDC Program			
SDC Facilities			
SDC Network			
SDC Firewall			
SDC Storage Optimization			
SDC Cloud Utility Service			
OB2/CTS Move Phase 1			
Migrate WSP to SDC			
Virtual Tape Library			
OB2/CTS Move Phase 2			
OB2 Data Center Optimization			

		Baseline Budget as of 6/2012	Actuals as of 10/31/2012
Phase #	Phase	Budget	Actuals
0	SDC Program	\$2,729,570	\$1,703,971
1	OB2 Heat Reduction	\$0	
2	Facilities Op Readiness	\$2,673,817	\$3,502,407
3	NW Core Op Readiness	\$8,592,141	\$5,727,071
4	Firewall	\$3,671,579	\$224,454
5	Storage Optimization	\$4,294,613	\$1,032,857
6	Cloud Utility Service	\$1,000,000	
7	OB2 Move Phase 1	\$6,700,814	\$120,790
8	Virtual Tape Library	\$1,950,000	
9	OB2 Move Phase 2	\$4,338,749	
10	OB2 Data Center Optimization	\$1,500,000	
11	Migrate WSP	\$2,000,000	
Total		\$39,451,283	\$12,311,550

Scope Key:

- G = No issues are impacting scope
- Y = Issues are being tightly managed, but may impact scope
- R = Unresolved issues are preventing progress of identified scope

Schedule Key:

- G = On schedule
- Y = Key milestones are more than 2 weeks late
- R = Key milestones are more than 8 weeks late

Budget Key:

- G = Planned spending is within 5% to 10% of agreed upon budget
- Y = Planned spending is within 11% to 20% of agreed upon budget
- R = Planned spending is greater than 20% of agreed upon budget

SDC Projects Status

Project	Planned for this Reporting Period (December 10 – December 21)	Status of Work Performed this Reporting Period (December 10 – December 21)	Planned for Next Reporting Period (December 24 – January 4)
SDC Program	<ul style="list-style-type: none"> Continue work on Design Decisions: <ul style="list-style-type: none"> Finalize SDC-036 Converged Networking and SDC0-38 Storage switch ownership SDC-013 Load Balancing for new CTS applications as current service nears EOS SDC Technology Lab – <ul style="list-style-type: none"> Complete the floor layout design including power and cooling management (Facilities) Plan enclosures including enclosure elevation drawings Order the equipment needed for the Lab (ESS) Review and update BOM (CSD) Finalize the SDC Technology lab guide Working with facilities on procedures Continue meeting with CTO to review datacenter security procedures 	<ul style="list-style-type: none"> Continued work on Design Decisions: <ul style="list-style-type: none"> Sent SDC-036 Converged Networking for final review. Continued work on SDC-013 Load Balancing for new CTS applications as current service nears EOS Reviewed SDC-038 Storage switch for accuracy Added SDC-039 VM Migration Strategy Continued work on SDC Technology Lab – <ul style="list-style-type: none"> Complete floor layout design including power and cooling management (Facilities) not completed as planned Plan enclosures not completed as planned Order the equipment needed for the Lab (ESS) not completed as planned Reviewed the BOM (CSD) Finalize the SDC Technology lab guide not completed as planned Continued working with facilities on procedures Continued meeting with CTO to review datacenter security procedures 	<ul style="list-style-type: none"> Continue work on Design Decisions: <ul style="list-style-type: none"> SDC-036 Converged Networking – integrating feedback into document SDC-013 Load Balancing for new CTS applications as current service nears EOS SDC0-38 Storage switch ownership – Reviewing data for accuracy SDC-039 VM Migration Strategy Continue work on SDC Technology Lab – <ul style="list-style-type: none"> Complete the floor layout design including power and cooling management (Facilities) Plan enclosures including enclosure elevation drawings Order the equipment needed for the Lab (ESS) Review and update BOM (CSD) Finalize the SDC Technology lab guide Continue working with facilities on procedures Continue meeting with CTO to review datacenter security procedures
SDC Facilities Prepare the SDC facility for customers. Includes preparing the critical environment (electrical/mechanical), floor space and physical security for customers.	<u>Space Management:</u> <ul style="list-style-type: none"> Continue work on operating procedures and implementation Configuring and provisioning enclosures for firewall project. Begin installing structured cabling for firewall project. <u>Physical Security:</u> <ul style="list-style-type: none"> Update procedures with required changes Implement access control changes Provide draft physical security policy to CTS policy team. <u>Critical Environment:</u> <ul style="list-style-type: none"> Continue to define required procedures and implementation plan 	<u>Space Management:</u> <ul style="list-style-type: none"> Continued work on operating procedures and implementation Configured and provisioned enclosures for firewall Installing structured cabling for firewall project completed week of 12/17 <u>Physical Security:</u> <ul style="list-style-type: none"> Updated procedures with required changes Implementing access control changes Scheduled review of physical security policy with OLS <u>Critical Environment:</u> <ul style="list-style-type: none"> Continued to define required procedures and implementation plan 	<u>Space Management:</u> <ul style="list-style-type: none"> Continue work on operating procedures and implementation Complete configuring and provisioning enclosures for firewall by 12/24 <u>Physical Security:</u> <ul style="list-style-type: none"> Update procedures with required changes Implement access control changes Finalize OLS review and provide draft physical security policy to David B. <u>Critical Environment:</u> <ul style="list-style-type: none"> Continue to define required procedures and implementation plan

Project	Planned for this Reporting Period (December 10 – December 21)	Status of Work Performed this Reporting Period (December 10 – December 21)	Planned for Next Reporting Period (December 24 – January 4)
SDC Network Core Establish the network core in the SDC and connect with the OB2 network.	<ul style="list-style-type: none"> Finalize migration plan for OB2 CRS/M6 equipment moves from OB2 to the SDC. Begin execution of Cisco Network Implementation Plan (NIP) Prepare for execution of Cisco Network Ready for Use (NRFU) functional tests 	<ul style="list-style-type: none"> Finalized migration plan for OB2 CRS/M6 equipment moves from OB2 to the SDC Completed execution of Cisco Network Implementation Plans (NIP) for Data Center Networking (DCN), Optical network, and Data Center Network Management (DCNM) Completed Cisco Network Ready for Use (NRFU) functional tests for Data Center Networking (DCN) and Optical network 	<ul style="list-style-type: none"> Complete execution of Cisco Network Implementation Plan (NIP) for SAN (Storage) Complete execution of Cisco Network Ready for Use (NRFU) functional tests for SAN and DCNM
SDC Firewall Project Replace aged and over-capacity firewalls and deliver enhanced data security services to both OB2 and SDC.	<ul style="list-style-type: none"> Rack mount production equipment Cable production equipment Power up production equipment Install base configuration for high availability and management access Build configuration to support Cisco NRFU testing 	<ul style="list-style-type: none"> Completed racking/mounting production equipment Completed cabling production equipment Powered up production equipment Installed base configuration for high availability and management access Built configuration to support Cisco NRFU testing 	<ul style="list-style-type: none"> Begin testing phase for function only Complete layer 1-3 connectivity to Network Core
SDC Storage Optimization Replace aged systems and optimize the environment to reduce rates.	<ul style="list-style-type: none"> Perform initial installation of VMAX SCA install for week of 12/17 Build & Configure SCA VM server Install SDC SAN cabling (VMAX to MDS9513) Configure SDC SAN switches Configure VMAX ESRS Connect & configure OB2-SDC ISL's Schedule VMAX configuration training 	<ul style="list-style-type: none"> Installed VMAX with factory BIN file – waiting for Production BIN file from Presidio / EMC EMC SCA expert was onsite 12/17-19 Built and configured SCA VM server, firewall rule changes requested, configuration continues Completed Install SDC SAN cabling (VMAX to MDS9513) Completed by Cisco 12/17 - Configure SDC SAN switches Configuration of VMAX ESRS - continues OB2-SDC ISL's are cabled, William is submitting a change request to TSD EDN for 12 ISL port connections at OB2 Scheduled VMAX configuration training 	<ul style="list-style-type: none"> Receive Production BIN file from Presidio / EMC and install Finish SCA configuration and knowledge transfer Finish cable / port change request at OB2 9513's for ISL's (TSD EDN) Finish VMAX ESRS configuration / test

Project	Planned for this Reporting Period (December 10 – December 21)	Status of Work Performed this Reporting Period (December 10 – December 21)	Planned for Next Reporting Period (December 24 – January 4)
Cloud Utility Servers Project Refresh Server Provisioning infrastructure and provide a cloud utility platform for CTS customers.	<ul style="list-style-type: none"> Purchase license upgrades for existing licenses Identify next steps for procurement of expertise regarding service definition 	<ul style="list-style-type: none"> Purchased license upgrades for existing licenses Identified next steps for procurement of expertise regarding service definition 	<ul style="list-style-type: none"> Begin work on procurement
OB2 Risk Mitigation (CTS Move Phase 1) Move selected CTS equipment that best alleviates the heat issue in OB2.	<ul style="list-style-type: none"> Continue to refine move groups for both physical and virtual servers. Refine the server portion of the task plan and schedule to hone in on the next 90 days as this is when the moves will start. Continue work on establishing performance measures. 	<ul style="list-style-type: none"> Continued refinement of move groups for both physical and virtual servers. Virtual servers will be split between those moving directly into the CTS Private Cloud and those that do not fit the initial Cloud solution (moved to virtual hosts). Applied updates to the task plan and schedule with focus on the next 90 days. Kicked-off the effort to establish performance measures for comparing SDC and OB2 system performance. Initial step is to identify existing measures that will work for both data centers. Completed initial project definition for the WAN Carrier Build-Out project, which will establish a point of presence in the SDC for internet carriers. 	<ul style="list-style-type: none"> Continue to refine move groups for both physical and virtual servers. Refine the server portion of the task plan and schedule to hone in on the next 90 days as this is when the moves will start. Continue work on establishing performance measures.
Migrate WSP to SDC Plan and execute the first phase of migrating the WSP data center to the SDC.	<ul style="list-style-type: none"> Continue work on the Inter Agency Agreement (pending WSP feedback). Continue efforts to establish SDC rates (pending from OFM). 	<ul style="list-style-type: none"> Received verbal feedback from WSP on the Inter Agency Agreement (IAA). Written feedback is pending. Nothing new to report on establishing SDC rates (pending from OFM). Met with WSP to discuss efficiencies of using CTS infrastructure. The two agencies will develop options for using CTS infrastructure to allow WSP to make business decisions on what services they may want to use. 	<ul style="list-style-type: none"> Set up two meetings to discuss WSP requirements for Network and Storage.
Virtual Tape Library Disaster Recovery (VTL) Procure additional VTL equipment to eliminate the tape backup system and support mainframe disaster recovery.	<ul style="list-style-type: none"> Storage SEA will research options for moving forward with the VTL environment 	<ul style="list-style-type: none"> Storage SEA researched options for moving forward with the VTL environment 	<ul style="list-style-type: none"> Storage SEA will research options for moving forward with the VTL environment

Project	Planned for this Reporting Period (December 10 – December 21)	Status of Work Performed this Reporting Period (December 10 – December 21)	Planned for Next Reporting Period (December 24 – January 4)
OB2 Risk Mitigation (CTS Move Phase 2) Continue the progress of Phase 1 by moving additional CTS equipment to the SDC.	<ul style="list-style-type: none"> No activity planned for next reporting period 	<ul style="list-style-type: none"> No activity planned for next reporting period 	<ul style="list-style-type: none"> No activity planned for next reporting period
OB2 Data Center Optimization Reconfigure remaining equipment in OB2 to optimize airflow and cooling.	<ul style="list-style-type: none"> No activity planned for next reporting period. 	<ul style="list-style-type: none"> No activity planned for next reporting period. 	<ul style="list-style-type: none"> No activity planned for next reporting period

External Project Collaboration

External Project	Planned for this Reporting Period (December 10 – December 21)	Status of Work Performed this Reporting Period (December 10 – December 21)	Planned for Next Reporting Period (December 24 – January 4)
Replace Cisco MDS 9509 SAN Fabric Switches Replace SAN fabric switches in OB2 that are at end of vendor support.	<ul style="list-style-type: none"> Work with team to complete revisions on project charter Update high level design as necessary Review proposed schedule with internal teams 	<ul style="list-style-type: none"> Worked with team to complete revisions on the project charter Updated proposed schedule 	<ul style="list-style-type: none"> Work with team to complete revisions on project charter Review proposed schedule with internal teams
VLAN Renumbering Optimize VLAN numbering	<ul style="list-style-type: none"> Continue work on WBS and project schedule Continue work on migration plan and timelines 	<ul style="list-style-type: none"> Reviewed project schedule and approach with team. Continued work on migration plan and timelines 	<ul style="list-style-type: none"> Continue work on migration plan and timelines
PBX Implement new PBX system	<ul style="list-style-type: none"> Work with vendor on finishing up the PBX processor configuration Cut over to the upgrade OLY2 PBX processor software and hardware on the night of Friday December 14th 	<ul style="list-style-type: none"> The PBX processor configuration was completed on 12/13 The OLY2 PBX was moved to the new processors on 12/14. Finished the Transfer to M&O on 12/17. 	<ul style="list-style-type: none"> *** Project Complete ***

Top Issues *

Issue Key: *Green* = Issue does not require action within 30 days, *Yellow* = Issue requires action within 30 days, *Red* = Issue requires action within 10 days or less

Issue #	Summary Description	Assigned	Priority (R,Y,G)	Opened Date/by	Next Review Date	Target Resolution Date	Comments/Resolution	Status
132	Roles & Responsibilities for the Storage Switches and converged network need to be defined. This includes who manages the SDC fiber channel switches and the roles and responsibilities for troubleshooting fiber channel over Ethernet (FCoE) across the converged network.	Jeff	Y	11/3/11	1/16/13	1/31/13	The design decision document was split into two design decisions (FCoE vs Storage Switches).	Open
145	Potential customers (including internal CTS services) will need to know any SDC related billing impacts before CTS service rates are set for network, storage, firewall, hosting, messaging, etc services in the SDC. Also, timing of new rates needs to be worked.	Dan	Y	3/16/12	1/16/13	1/31/13	Dan working on rate structure proposal for Exec Management and OFM.	Open
199	Need to determine the scope and inter-dependencies for VTL	Gordon	Y	7/22/12	1/16/13	1/31/13	Valerie researching open questions.	Open
209	Identify space for storage of technology assets.	Doug	Y	11/16/12	1/16/13	1/16/13	Doug is working with teams to identify requirements and plan for resolution.	Open

Issues Closed this Period

Issue #	Summary Description	Assigned	Priority (R,Y,G)	Opened Date/by	Next Review Date	Target Resolution Date	Resolution	Status

Change Requests *

No.	Description	Requestor	Request Date	Assigned	Cost Impact	Schedule Impact	Status
	None for this reporting period						

Status (Submitted, Proposal, Approved, Opened, Resolved, Verified, Closed)

Top 5 Risks *

ID	Risk Description	Risk Category	Level of Impact	Likelihood	Schedule	Ability to Meet Deadline	Risk Mitigation Comment	Due Date & Action	Assigned To
1	Customers that were expecting to come into the SDC right away must now wait longer, which has end of life/investment implications	Man	3	R	G	G	Communicate with customers the new plan and schedule.	Ongoing	Program Manager
2	Timing may force a need to place hardware in OB2, which has an adverse impact on the heat reduction effort.	Cap	2	Y	G	G	<ul style="list-style-type: none"> Work with customers to identify solutions that minimize additional heat in OB2. Institute OB2 heat reduction initiatives to turn off unused servers Delay implementation of new hardware in OB2 as late as possible 	Ongoing	Facilities
3	Because the project is large and includes substantial logistical challenges involving multiple projects/agencies, interdependencies will be complex and could be overlooked.	Man	1	R	G	G	<ul style="list-style-type: none"> Apply project management practices to manage the effort. Break the work down into small and logical units. Use tools to track tasks, dependencies, issues, risks, etc. and automate the planning and communications as much as possible. Implement migration approaches that minimize impacts of system dependencies, such as spanning the network between the OB2 and SDC data centers. Use development and test platforms to verify system dependencies. 	Ongoing	Sr. Project Manager
4	Even though the scope has been reduced to better match the budget, it may be insufficient. Several items remain unfunded.	Res	1	R	G	G	<ul style="list-style-type: none"> Request funding for unfunded projects Identify other funding sources (if possible) Reduce project scope Back-log unfunded projects 	Ongoing	Program Manager
5	Resource Conflict – Program relies on functional staff with competing priorities.	Res	1	R	G	Y	<ul style="list-style-type: none"> Provide clear management guidance on priorities and carefully manage functional staff to minimize conflicts in priorities and work tasks. Expand resource management and track task assignments to the resource level. Identify areas in the plan where resource loading indicates a problem and take appropriate action. 	Ongoing	Sr. Project Manager

Risk Category = (Res)ources; (Man)agement; (Tec)hnology; (Fun)ctional; (Dev)elopment; (Int)erfaces; (Sec)urity; (Usa)bility; (Ava)ilability; (Per)formance; (Cap)acity; (Sca)lability; (Ext)ernal.

Level of Impact Key:

1=major impact
2=significant impact
3=minor impact
0=no impact

Likelihood Key:

G = Low.
Y = Moderate
R = High

Schedule Key:

G = on schedule
Y = Less than 30 days behind schedule (caution)
R = More than 30 days behind schedule (warning)

Ability to Meet Deadline Key:

G = based on current information, it appears manageable
Y = there are significant obstacles or areas of uncertainty or concerns
R = there are clearly identifiable threats or deterioration of ability to manage and control

Steering Committee Action Items

Item #	Item Description	Assigned	Date Assigned	Date Due
1				